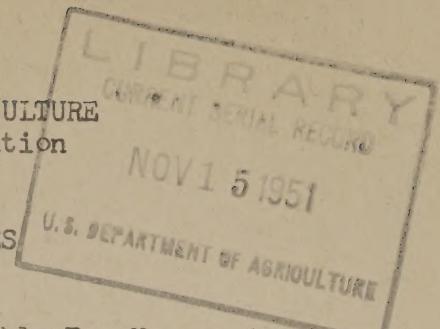


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L690  
Cop 2

UNITED STATES DEPARTMENT OF AGRICULTURE  
Rural Electrification Administration  
Washington 25, D. C.

TECHNICAL STANDARDS COMMITTEES  
Month of September 1951



The attached pages for the "List of Materials Acceptable For Use on Systems of REA Borrowers" are those which have been revised by action of the Technical Standards Committees during the month of September 1951. Revised sheets will be furnished monthly. It is important that they be placed in your copy of the list of materials immediately upon receipt in order to keep it up-to-date. Please add these pages to replace those which are obsolete as shown below.

Add the following:

<u>Page</u>	<u>Date</u>
D a-1	September 1951
D a-2	"
D b-1	"
D d	"
D f	"
D j	"
D k	"
D l-1	"
D l-2	"
D n	"
D s-1	"
D aa to ad	"
D an-4	"
D ap-6	"
D as	"
D av-2	"
D av-4	"
D bh	"
D cg-2	"
D cm-1	"
D du	"
D gb	"
T f	"
T an	"
T av-2	"
T cg-2	"

Remove the following:

<u>Page</u>	<u>Date</u>
D a-1	August 1951
D a-2	July 1951
D b-1	"
D d	April 1951
D f-1	July 1951
D f-2	"
D j-1	"
D j-2	"
D j-3	"
D k-1	August 1951
D k-2	July 1951
D l-1	August 1951
D l-2	"
D n-1	1951
D n-2	April 1951
D s-1	1951
D aa to ad	"
D an-4	June 1951
D ap-6	"
D as	1951
D av-2	July 1951
D av-4	June 1951
D bh	1951
D cf	"
D cg-2	August 1951
D cm-1	April 1951
D du	July 1951
D gb	August 1951
T f-1	1951
T f-2	"
T an	June 1951
T av-2	"
T cg-2	August 1951



a - Insulator, pin type

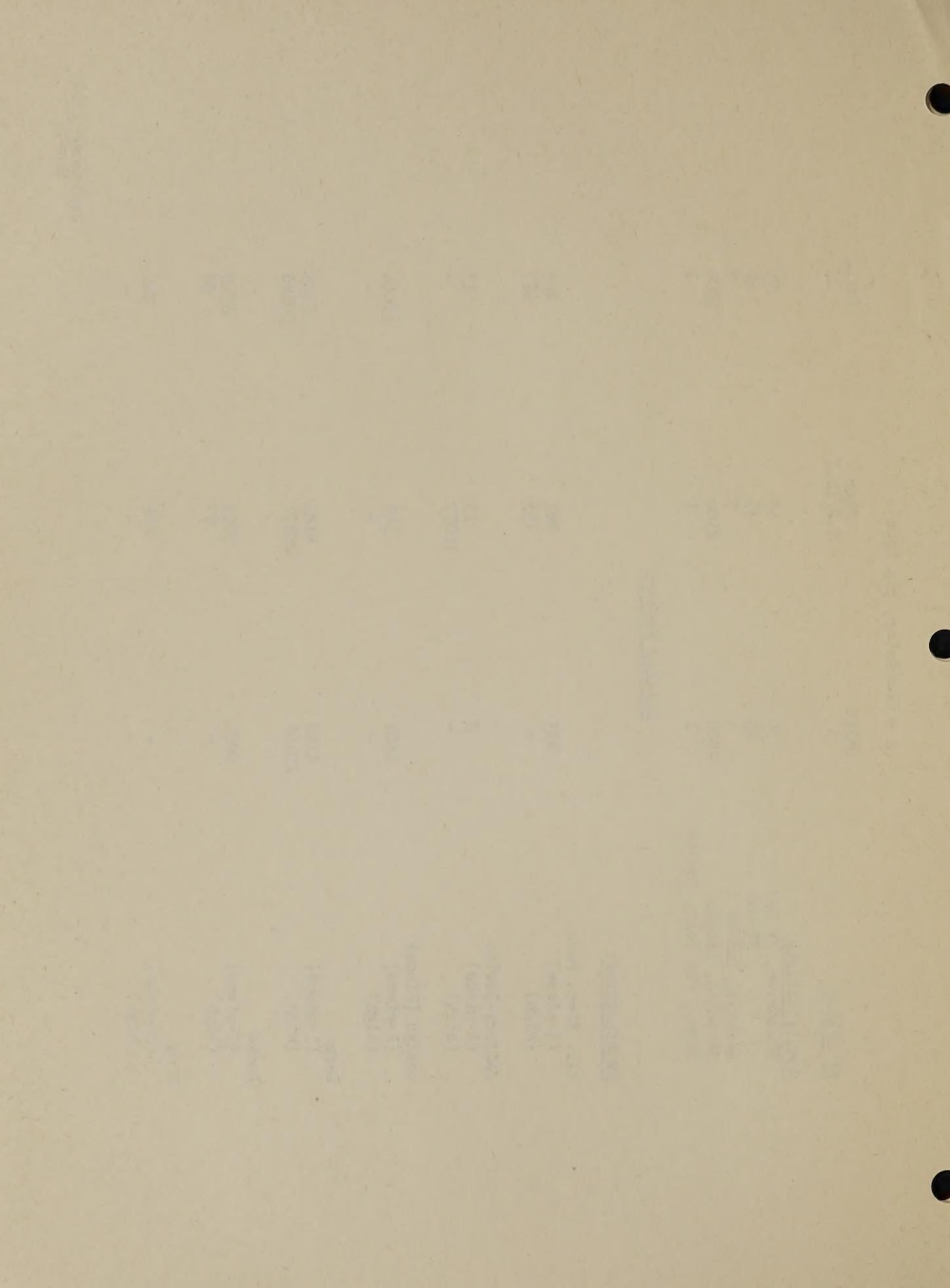
KV Class:	Delta	Star	Delta	Star
	5	7.2/12.5	15	15
<u>Specifications:</u>				
Flashover, KV Dry	50	65	70	70
" , KV Wet	25	35	40	40
Leakage, Inches	5	7	9	9
Strength, Pounds	2500	2500	3000	3000
Diam., Pin Hole, Inches	1	1	1	1

Catalog Number:

Manufacturer:

III. Elec. Porc. (1-piece) (high)	253	261	266	266
Jeffery-Dewitt (1-piece) (high)	8	13	175	175
Joslyn (Pinco) (1-piece) (high)	-	10077	15	-
Lapp (1-piece) (high)	1401	163	11044	-
Lapp (1-piece) (high)	6188	6184	6183	6183
Locke (1-piece) (high)	20166	20177	20188	20188
Knox (1-piece) (high)	-	9995	77	88
Knox (1-piece) (high)	-	261	-	-

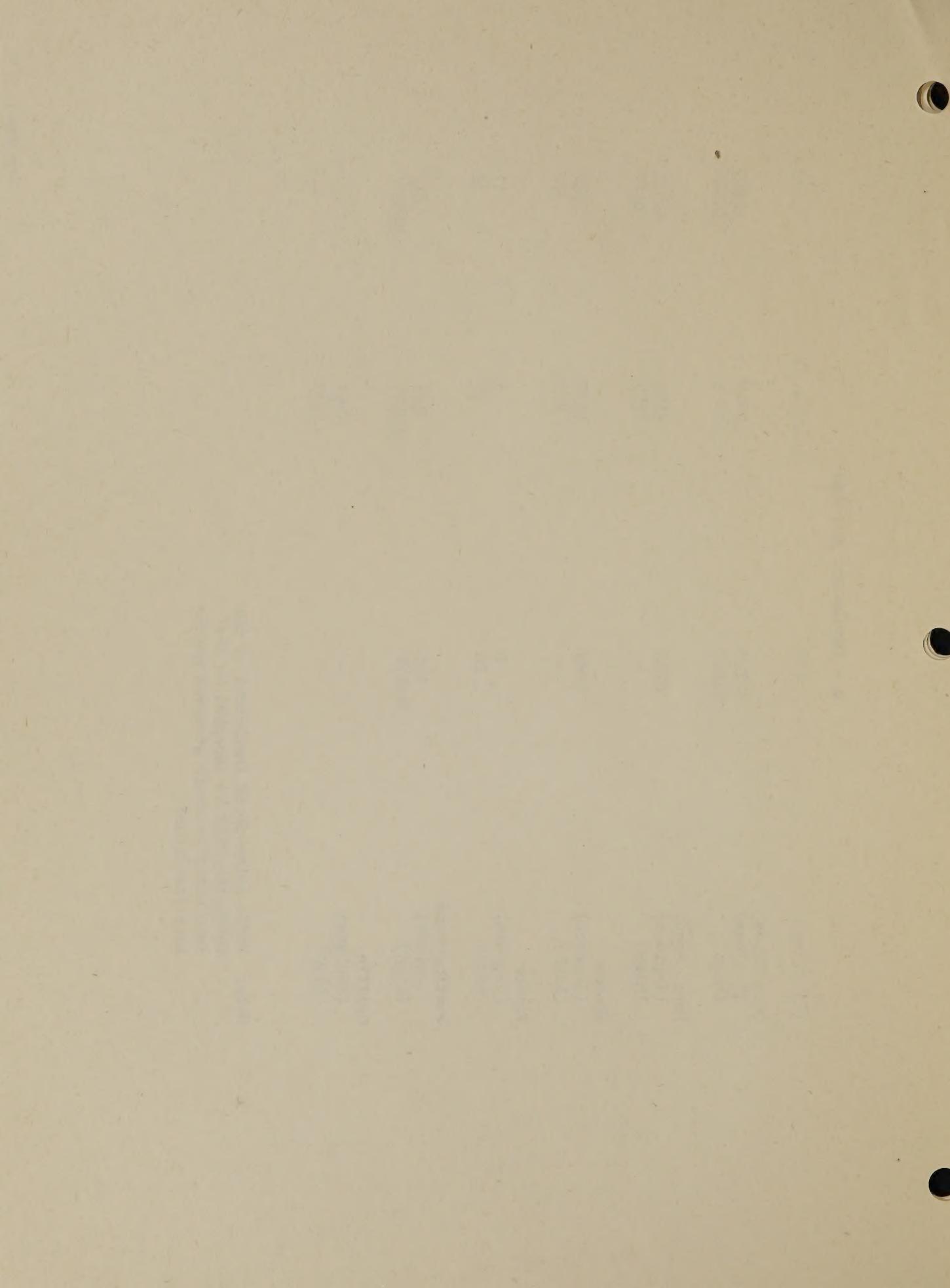
September 1951  
D a-1



a - Insulator, pin type

(KV Class)	(5)	(7.2/12.5)	(15)
Ohio Brass (1-piece) (high)	12847 34847	12848 34848	12849 34849
Porc. Prod. (1-piece) (high)	6188 -	6195 6377	6198R 6388
Thomas	1009 -	1177 277	1292 288
Victor (1-piece) (high)	8 16	5 17	11 18
Westinghouse (1-piece) (high)	146 968472	166 968473	1013 968474
Griffin (1-piece) (high)	- -	6195 6377	- -

Note: Radio noise-proof insulators of the foregoing will be accepted on the same basis as their standard porcelain insulators.



**b - Pin, pole-top, steel**

Thread (inches diam.)       $\frac{1}{15}$        $\frac{1}{8}$        $\frac{1}{24}$        $\frac{1-3/8}{8}$   
Length, over-all (inches)      -  
Spacing (inches)      -

**Manufacturer:**

**Catalog Number:**      **(REA Standard)**

**Electrical Mfg. Co.**  
**Formed pin**

**Hubbard**  
**Formed pin**  
 **$1\frac{1}{2}$ " pipe pin**

**Joslyn**  
**Formed pin**  
 **$1\frac{1}{2}$ " pipe pin**

**Kortick**  
**Formed pin**  
 **$1\frac{1}{2}$ " pipe pin**

**Line Material**  
**Formed pin**  
 **$1\frac{1}{2}$ " pipe pin**

**Locke**  
**Formed pin**  
 **$1\frac{1}{2}$ " pipe pin**

**Oliver**  
**Formed pin**  
 **$1\frac{1}{2}$ " pipe pin**

**Formed pin**

**3162**      **3170**      **3049**  
-      -      3073

**J715**      **J718**      **J2011**  
-      -      J1281

-      -      -

**SA28X8**      **12111**      **-**  
-      -      12151

-      -      -

**3717**      **-**      **2049**  
-      -      2073

**3735**      **-**      **3825**

1

2

3

19a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

20a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

21a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

22a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

23a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

24a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

25a. *Ulmus americana*  
Lam. var. *lanceolata*  
T. Nees.

d - Washers

Manufacturer

Catalog Number:

2 $\frac{1}{4}$ "x2 $\frac{1}{4}$ "x3/16, 13/16" hole

4"xx4"xx $\frac{1}{2}$ ", 13/16" hole

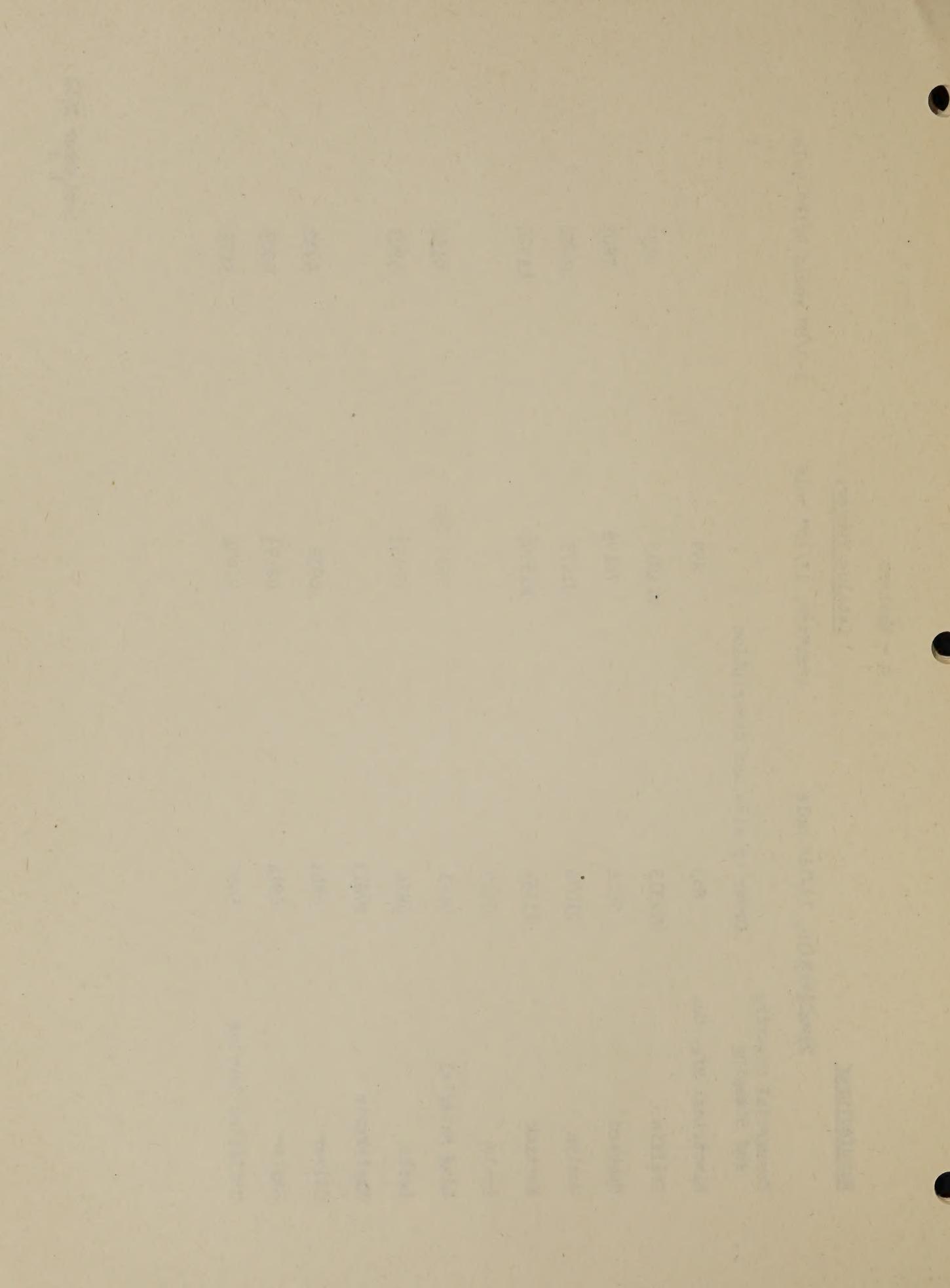
1-3/8" round 9/16" hole

Commercial Shearing  
and Stamping

Order by size and description

Electrical Mfg. Co.	853	859	W138
Griffin	W22313	W44813	
Hubbard	7814	7819 $\frac{1}{2}$	7803
Joslyn	JL076	JL473	JL086
Kortick	K1553	K1559 $\frac{1}{2}$	K1524
Lewis	6943		
Line Material	9451	9457 Sp.	9462
Locke	6814	6819 $\frac{1}{2}$	6803
Mastergrip	M7813		
Oliver	6943	6938	6932
Seyler	6814	6819 $\frac{1}{2}$	6803
Utilities Service	5485	5490A	5478

September 1951  
D d



f - Pin, crossarm, steel

(With square washer, nut, and locknut)

<u>Manufacturer</u>	<u>Long Shank</u>	<u>Short Shank</u>	
Electrical Mfg. Co.	911	941	920      946
Griffin	-	3417	-      -
Hubbard	981	5326	986      5325
Joslyn	J203	J607A	J221      J630
Kortick	K7103	K7711	K7742
Line Material	223848	31437	-      31432
Locke	881	4326	886      4325
Oliver	3506	3417	3555      3467
Seyler	881	4326	886      4325
Util. Service	558	3137	579      3142

Thread (inches diam.)  
Length, above base (inches)  
Length, below base (inches)  
Shank (inches diam.)

1      1-3/8      1-3/8      Clamp Type Pin  
5      7      7      (1" dia. lead thread)  
5-3/4      7      1-1/2      1-3/4  
5/8      3/4      5/8      3/4

September 1951  
D f



J - Screw, lag  
( $\frac{1}{2}$ " diam. x 4" long)

Manufacturer:

Electrical Mfg. Co.

Griffin

Hubbard

Joslyn

Kortick

Lewis

Line Material

Locke

Mastergrip

Oliver

Seyler

Util. Service

Catalog Number

L404

4804

9754

J8754

K1124

5704

9544

8754

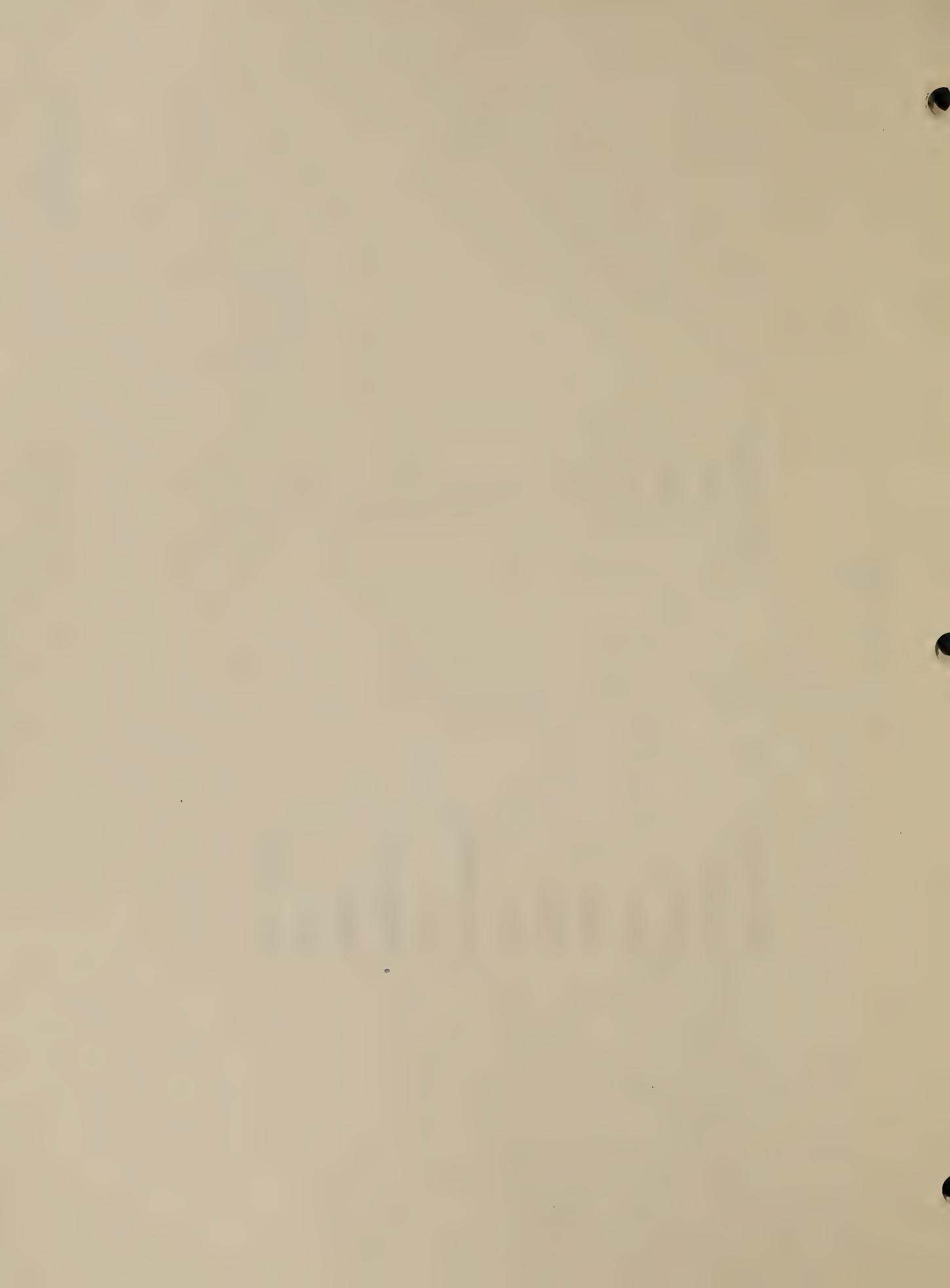
M9754

5704

8754

5370

September 1951  
D J



k - Insulator, suspension, clevis type  
All items listed shall have 5/8" cotter bolts

22

15

5

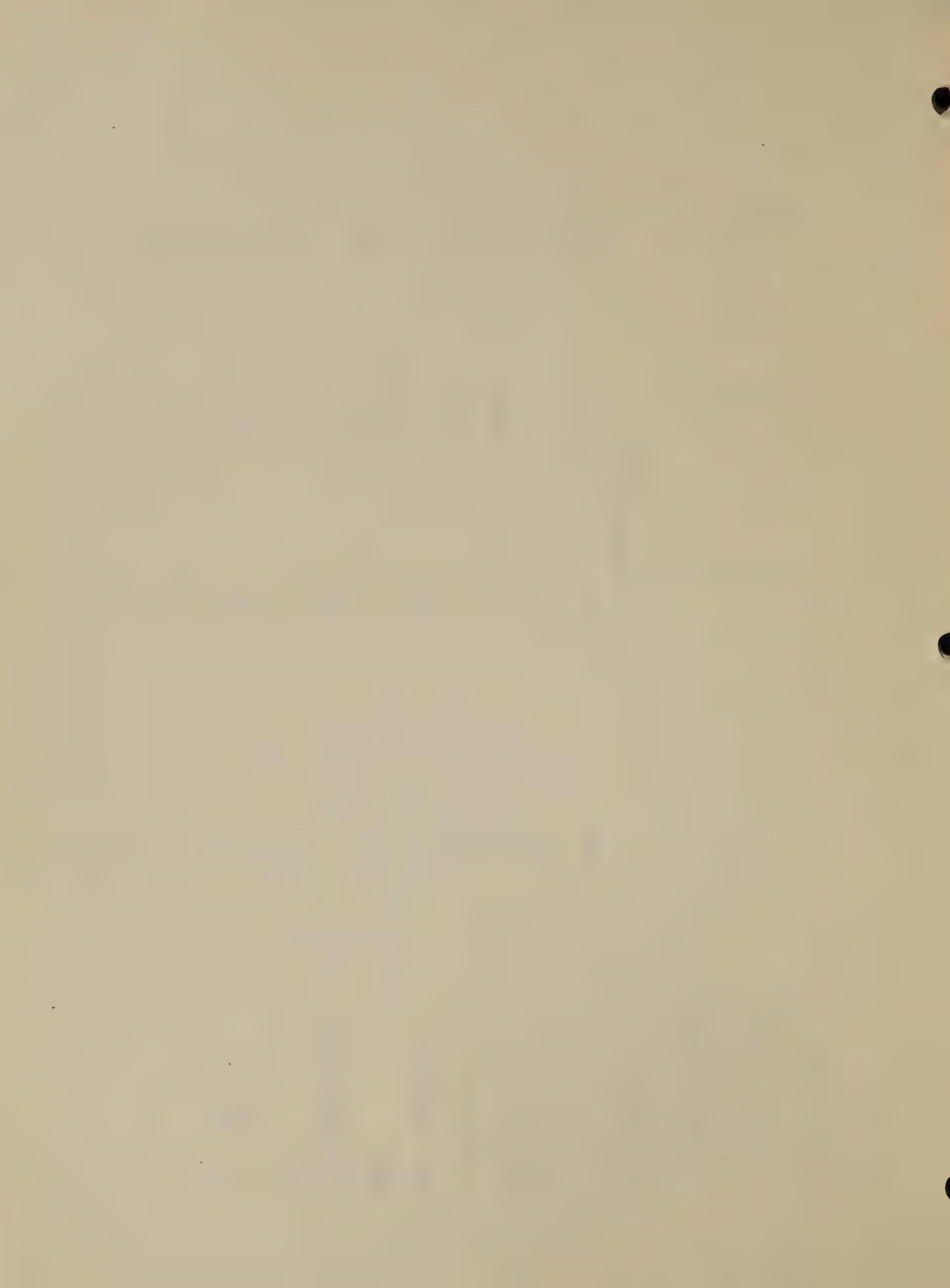
KV Class:

Specification:

Flashover, KV	Dry	60	60	65	80
" KV	Wet	30	30	35	50
Leakage, Inches		7	7	8 $\frac{1}{4}$	11 $\frac{1}{2}$
Strength, Pounds		10,000	10,000	15,000	15,000
Diam., Inches		6	6	7 $\frac{1}{2}$	10
Units per string		1	2	2	2
Spacing, Inches		5 $\frac{1}{2}$	5 $\frac{1}{2}$	5-3/4	5-3/4

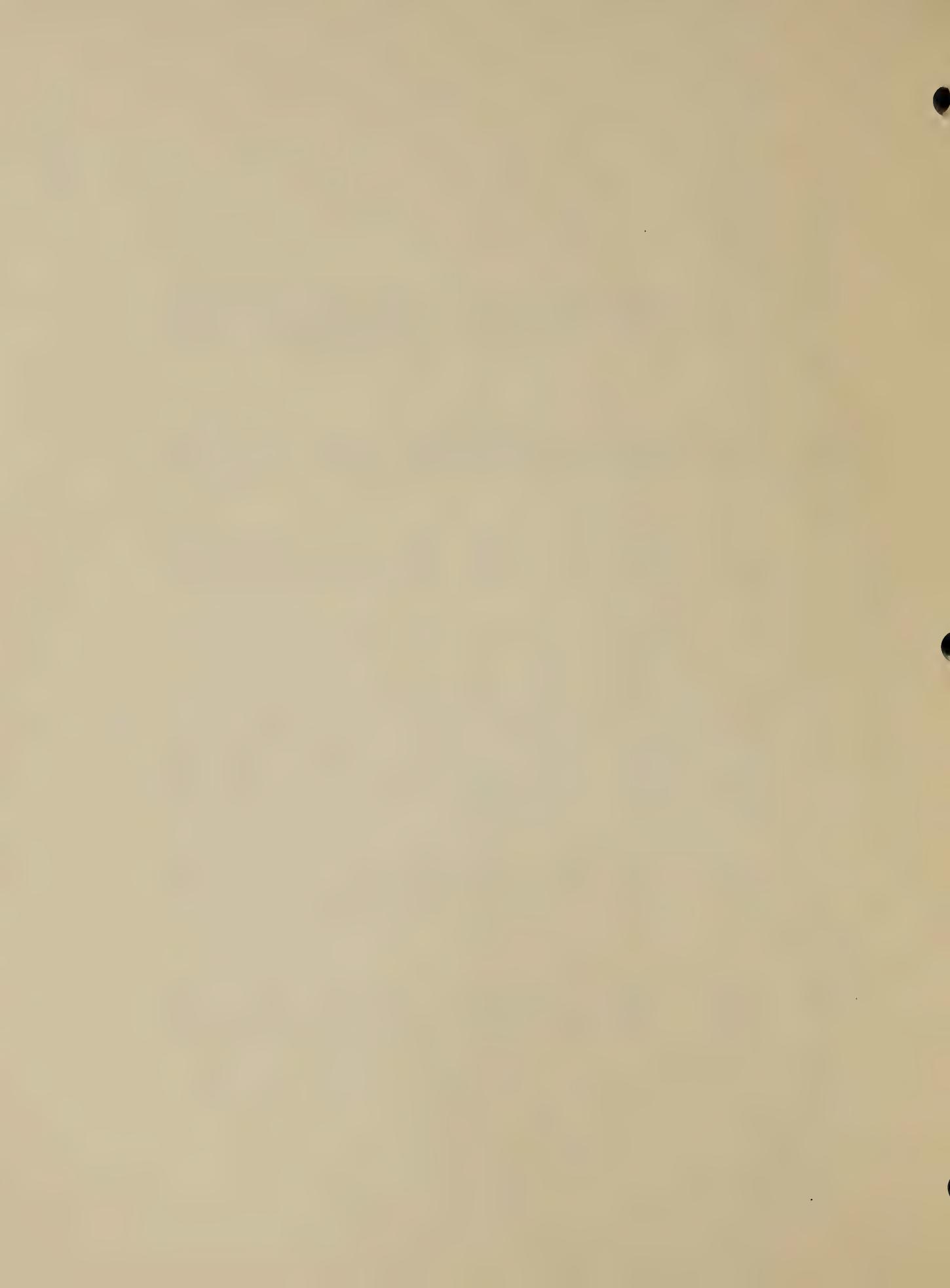
Manufacturer:

<u>Manufacturer</u>	<u>Catalog Number</u>				
Griffin	66200	66220	66250		
Ill. Elec. Porc.	454	1261	1270	1271	
Jeffery-Dewitt	2680	2680	2667	2686	
Joslyn (Pinco)	11510	11510	1600	11070	
Knox Porcelain	86012	86012	-	-	
Lapp	6605	6605	9507	8100	
Line Material Co.	-	1804	-	-	
Locke	16583	16583	5875	580	
Ohio Brass	32433	32433	32435	32439	
Porc. Prod.	66200	66200	66220	66250	
Thomas	1204	1204	1199B	21238	
Victor	804	804	801	800	
Westinghouse	918371	918371	570262	570265	



1 - Clamp. deadend  
All items listed shall have 5/8" cotter bolts

	Conductor			Conductor		
	ACSR	2x3	4 and 6	ACSR	(Plus Tape)	ACSR
Copper	1/0x7	2x3	4 and 6			
Copperweld	2A		4A thru 3#12			
Steel**		4	6 thru 8			
Amerductor***	-	1437	-	1437	#2/0-6/1	#2-7/1 thru #4-6/1
	-	-	-	Acme	-	-
	-	-	-	Manufacturer	3/0	#1/0-6/1
	-	-	-	Aluminum Co. of	-	1655
	-	-	-	America	-	2050
	-	-	-	Anderson Brass	DE-102	1655
	-	-	-	Brewer-Titchener	-	2050
	-	2116	2115	-	2116	2107*
	-	2115	-	-	-	2115
	-	-	-	-	-	2116
	-	-	-	Griffin	-	1655
	-	1437	1437	Ill. Elec. Proc.	-	1655
	-	2115	-	-	-	2115
	-	-	-	-	-	2107*
	-	5300	5300	Jeffery-Dewitt	5311	5026
	-	14038	14038	Joslyn (Pinco)	11921	14536
	-	20300C	20300C	Lapp Ins. Co.	-	20300A
	-	-	-	-	-	-
	-	V2102	V2090	Line Material	V4060	V2050
	-	-	V2102	-	-	-
	-	42115	42115	Locke	20087	42107*
	-	-	-	-	-	-
	-	80500	80500	Ohio Brass	78500	78500
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	1437	1437	Porc. Prod.	1655	1655
	-	-	-	Reliable	-	1655
	-	42115	42115	Seyler	20087	42107*
	-	-	-	-	-	42107*
	-	2115	2115	Thomas	2116	2107*



1 - Clamp, deadend  
All items listed shall have 5/8" cotter bolts

	Conductor				Conductor		
	Copper	1/0x7	2x3	4 and 6	ACSR	(Plus Tape)	Conductor
Copperweld	2A		4A thru 3#12				
Steel**	4	4	6 thru 8				
Amerductor**		1437	1437	Victor	3/0	2/0-6/1	1/0-6/1
	-	2102	2090		-	4,060	4,060
	-	-	2102		-	-	4,050
	-	968751	968751	Westinghouse	-	BTC 7511	1028291
	-	-	-		-	BTC 2115	BTC 2115
	-	-	-		-	BTC 2107*	BTC 2107*

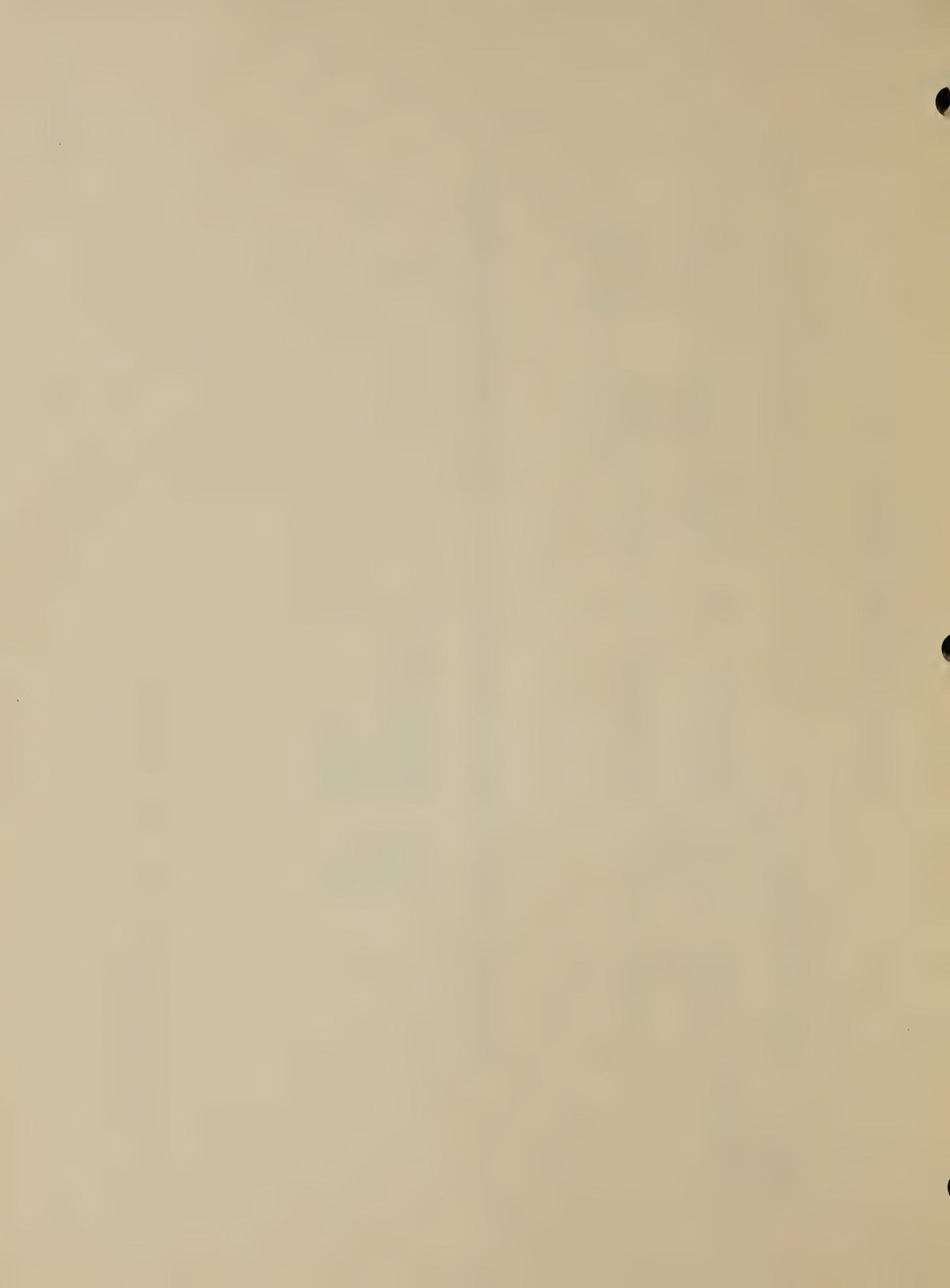
Items Listed Below Given Emergency Acceptance for the Period of Material Shortage Only

-	-	2106	Brewer-Titchener	-	-
-	-	2106	Ill. Elec. Proc.	-	-
-	-	2100B	Lapp Ins. Co.	-	-
-	-	42106	Locke	-	-
-	-	2106	Thomas	-	-
-	-	42106	Seyler	-	-

\* Clamp furnished with liner--does not require tape.

\*\* For replacement purposes only.

September 1951  
D 1-2



n - Bolt, double arming  
(5/8" diam.)

Length (inches)      12      14      16      18      20      24

Manufacturer:

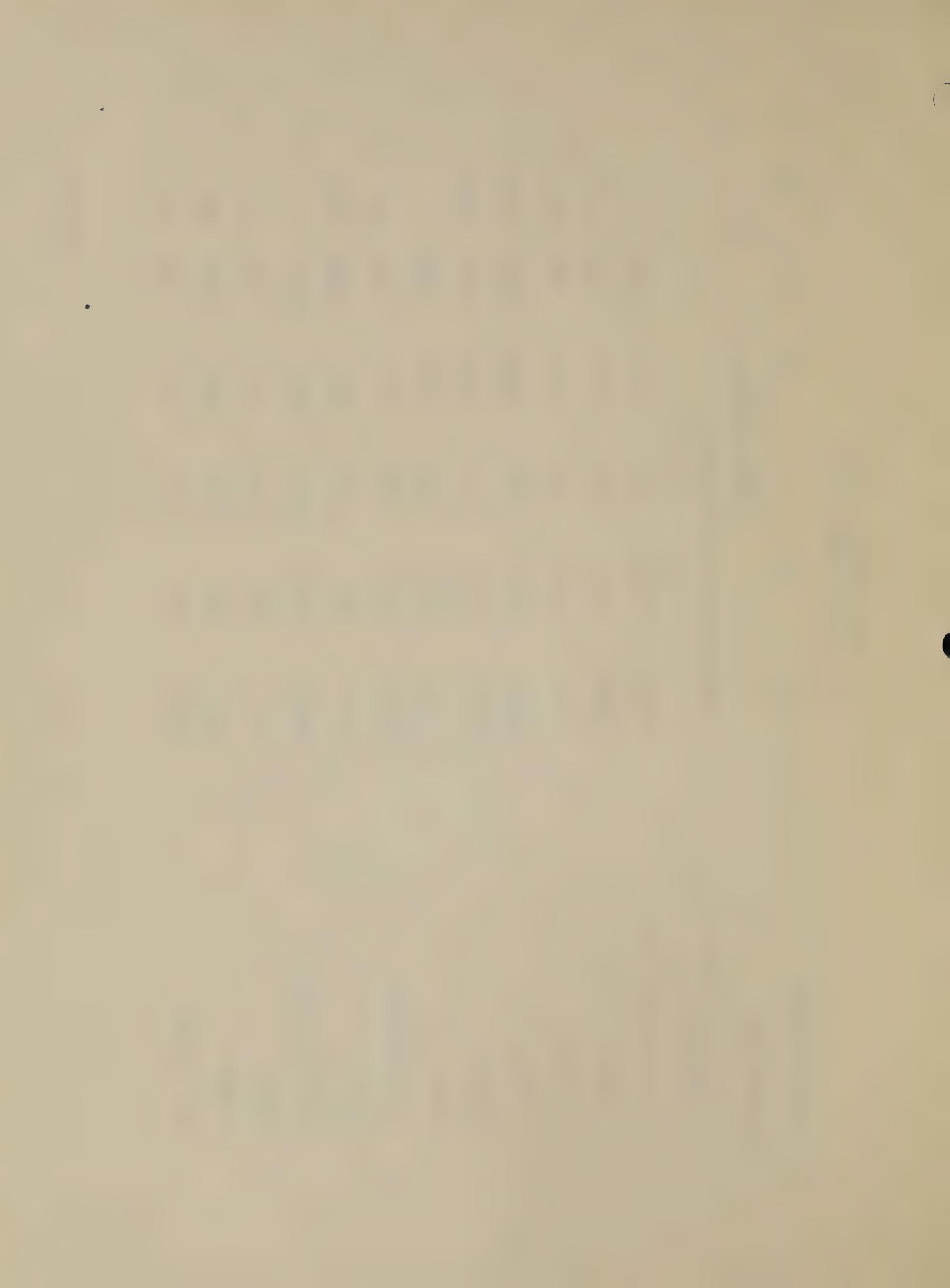
Commercial Shearing  
and Stamping

Manufacturer:

Order by size and description

		<u>Catalog Number:</u>
Electrical Mfg. Co.		
Griffin	D512	D514
Hubbard	A512	A514
Joslyn	9862	9864
Kortick	KL362	KL364
Lewis	6412	6414
Line Material	9380	9381
Locke	8862	8864
Mastergrip Util.	M9862	M9864
Oliver	6412	6414
Seyler	8862	8864
Util. Serv.	5076	5077
	D516	D518
	A516	A518
	9866	9868
	KL366	KL368
	6416	6418
	9382	9383
	8866	8868
	M9866	M9868
	6416	6418
	8866	8868
	5078	5079
	D520	D520
	A520	A524
	9870	9874
	KL370	KL374
	6420	
	8870	8874
	5080	5082

September 1951  
D n



s - Clevis, secondary, swinging, insulated

<u>Manufacturer:</u>	<u>Clevis, Single With 1-3/4" Groove Insulator</u>	<u>Clevis, Single With 3" Groove Insulator</u>
Electrical Mfg. Co.	646	676*
Griffin	1307	1305
Hubbard	2968	1355
	1353	
Joslyn	J0322	J0327
Kortick	K9145	K9149
	K9109	
Line Material	102940	SPA-629
Locke	0352*	0352*
	1968*	
Oliver	4436	-
	4438	
	4445	
Porc. Prod.	1991	-
Knox	1307-A	1307-C

\* Wet process insulators not included. See page "D cm" for spool type insulators.

September 1951  
D 3-1

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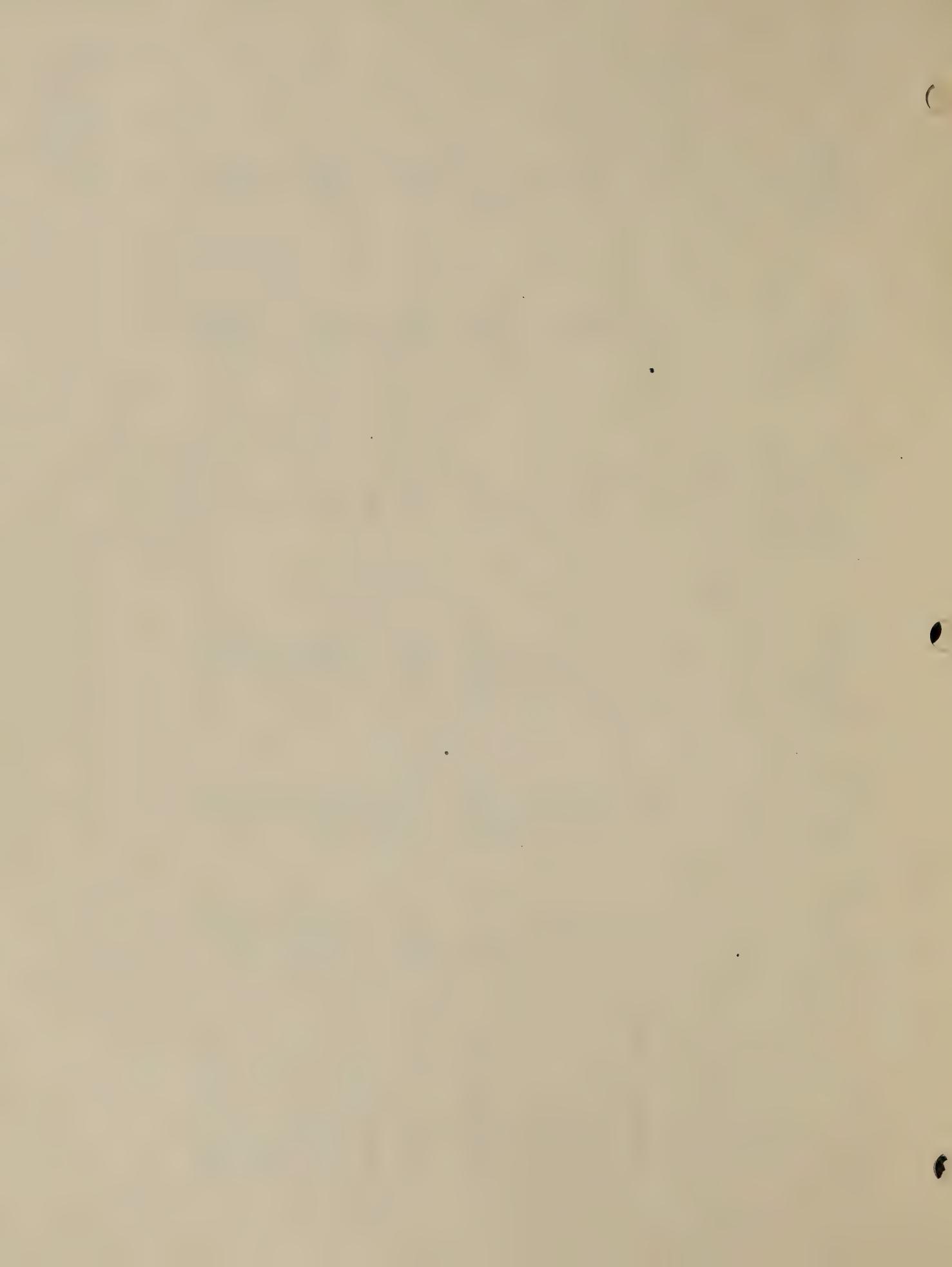
as - Nut, eye 5/gr  
Conv. Eyelet

ab - Nut, thimble type	ac - Brace sidearm	ad - Pin transf.
eye	diagonal	#22 wood screw
5/8in	1-3/4" angle	1-3/4" angle
	3/16in x 5"	3/16in x 7"

Mémoires actuels

Chance	—	—	580	—	—	—	—
Electrical Mfg. Co.	790	792	—	—	753	750	962
Hubbard	7502	7517	7510	—	7981	7984	126
Joslyn	J1092	J1126	J6510	JL521	JL525	J025	K025
Kortick	K4212	K4411	K3111	K1951	K1954	K7145	K7145
Line Material	1739	1741	A340010-1	9280	9286	2311	2305
Locke	6502	6517	6510	6981	6984	026	026
Mastergrip	—	M7514	—	M7981	—	—	—
Oliver	9460	9480	9440	5171	5173	3600	3600
Griffin	11000	—	5800	—	—	—	—
Seyler	6502	6517	6510	6981	6984	026	026
Util. Service	450	497	C580	5210	5212	587	587

September 1951  
D as to ad

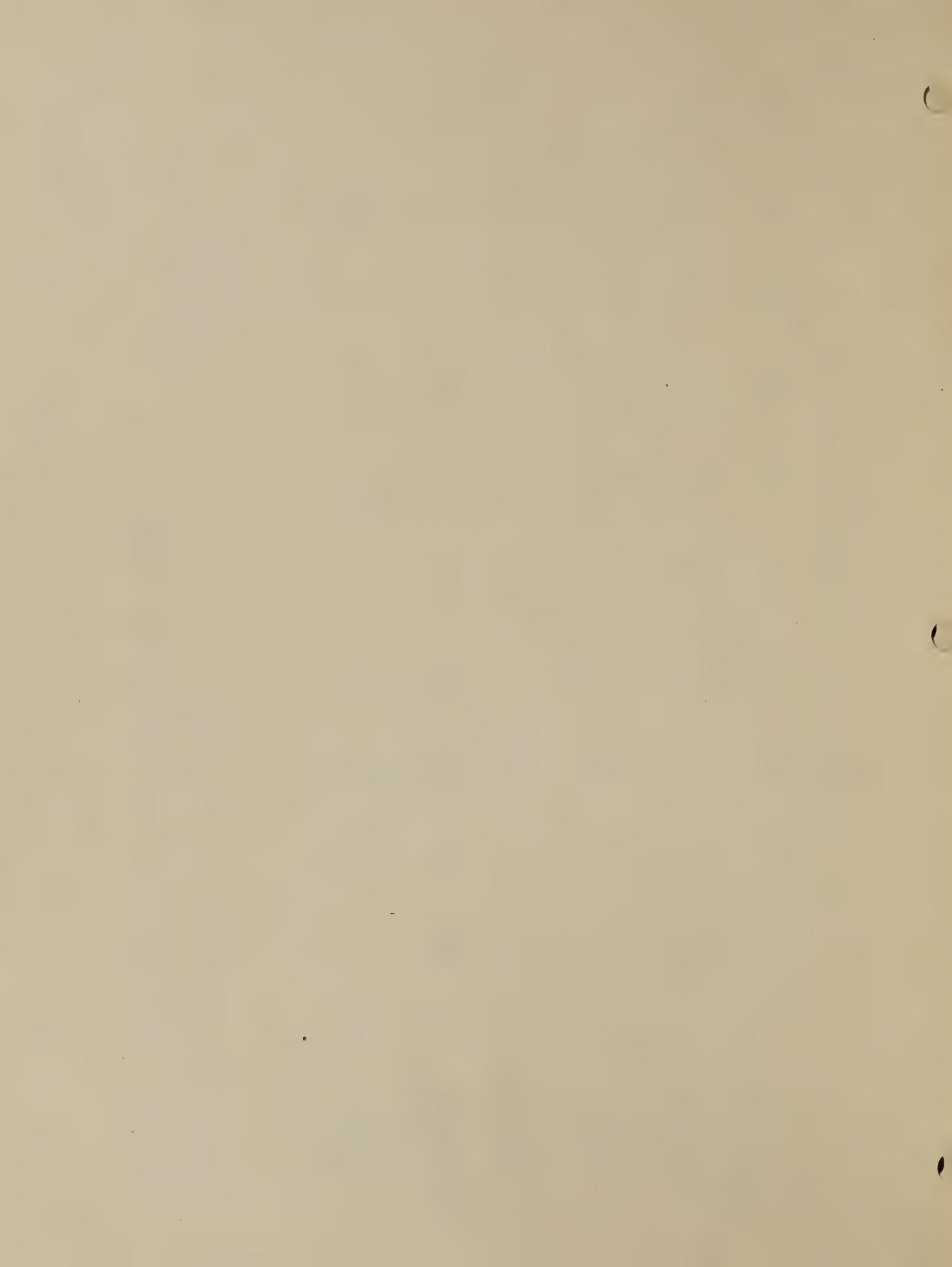


an - Transformers, Step-Down, Single-Phase, Substation

KVA Capacity	50	100	167	250	333	500	667	833	1000
Manufacturer									
General Electric KV Primary	Type	HS	HS	HS	HS	HS	OA	OA	OA
13.8, 13.2	X	-	X	X	X	-	-	-	-
22.9	X	X	-	X	-	-	-	-	-
34.4	-	X	X	X	X	-	-	-	-
43.8	-	X	-	X	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-
Moloney KV Primary									
67	-	-	X	X	X	X	X	X	X
Westinghouse KV Primary	Type	SL							
13.8, 13.2	-	-	-	X	X	X	-	X	-
22.9	-	X	X	X	X	X	-	X	-
34.4	X	X	X	X	X	X	-	X	-
43.8	X	X	X	X	X	X	-	X	-
67	-	-	-	-	-	-	-	-	-

"X" indicates an accepted size for secondary voltages of 7200/12470 volts Y and 7620/13200 volts Y.

"O" indicates an accepted size for secondary voltage of 14400/24900 volts Y.



ap - Clamp, Hot line

A.C.S.R.

<u>Gauge</u>	<u>4/0</u>	<u>3/0</u>	<u>2/0-6/1</u>	<u>1/0-6/1</u>	<u>2</u>	<u>4</u>
Diam., inches, bare	0.563	0.502	0.447	0.398	0.325	0.257
Diam., inches, plus rods	0.939	0.836	0.745	0.744	0.595	0.555

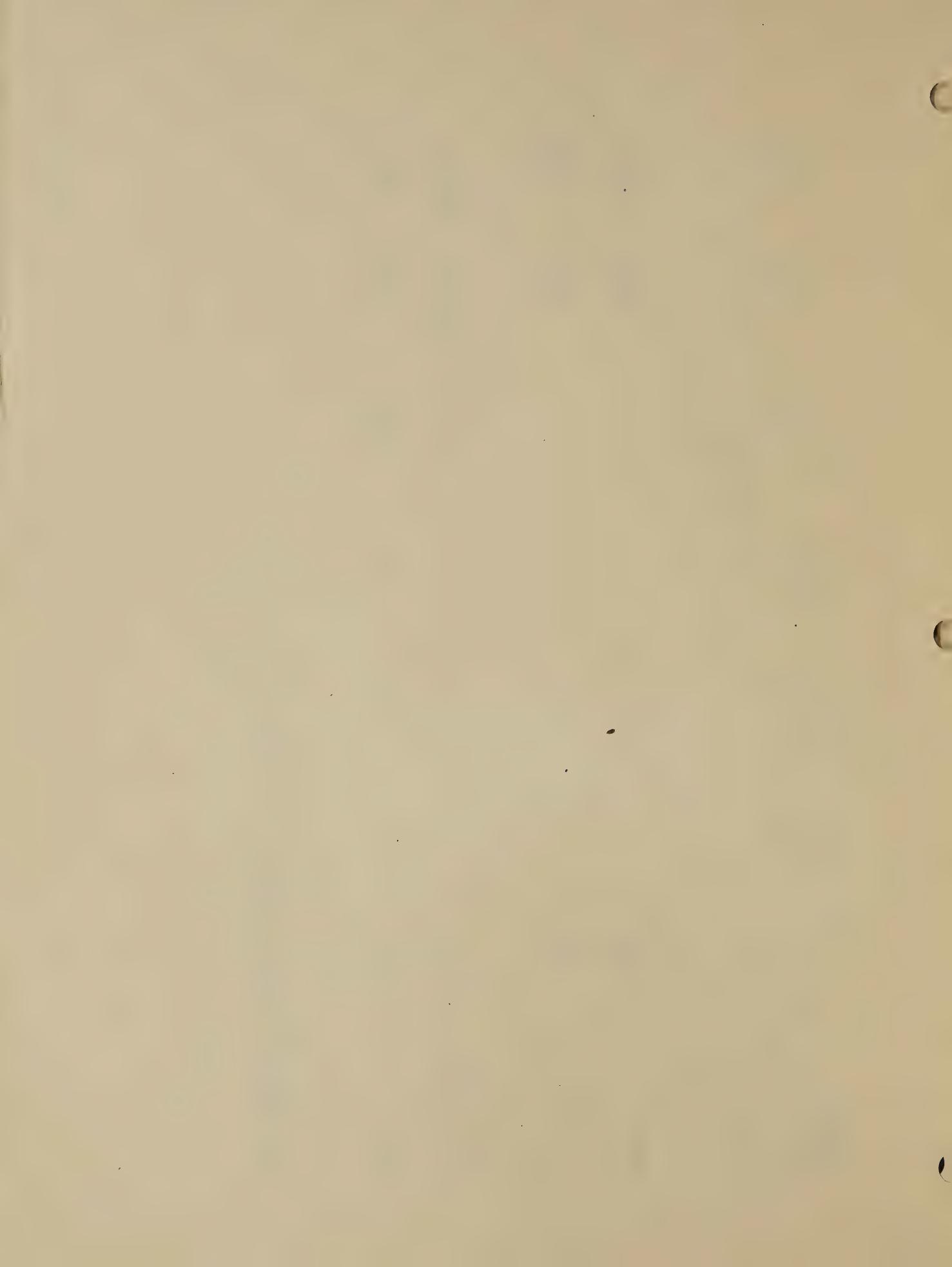
Manufacturer:

Catalog Number:

Nelson	AA*	-	-	-	2020-4	2020-4
	AC*	-	-	-	2020-2	2020-2
Reliable	AA*	-	-	-	596A	596A
	AC*	-	-	-	596AC	596AC
Southern States	AA*	-	-	-	WA-56-50	WA-50-48
	AC*	-	-	-	WB-56-50	WB-50-48
Weaver	AA*	-	-	-	WSB-C	WSB-C
	AC*	-	-	-	WSB-C	WSB-C

AA\* - Indicates connection from Al over armor rods to Al.  
AC\* - Indicates connection from Al over armor rods to Cu. or Culd.

September 1951  
D ap-6



as - Clevis, service, swinging, insulated

<u>Manufacturer</u>	<u>Catalog No.</u>	<u>With wet process insulator</u>	<u>With dry process insulator</u>
Electrical Mfg. Co.			
Griffin	647	-	1312
Hubbard	2938	2948	
Joslyn	J1624	J1626	
Kortick	K9141	K9142	
Line Material		-	102938
Locke	1938	1948	
Oliver	4440	4441	
Porc. Prod.	-	1990	
Knox	1312	-	
Seyler	1938-M	1948-M	
Utilities Service	31003	31004	

Catalog number includes insulator; for spool type insulators see item "cm".

September 1951  
Das

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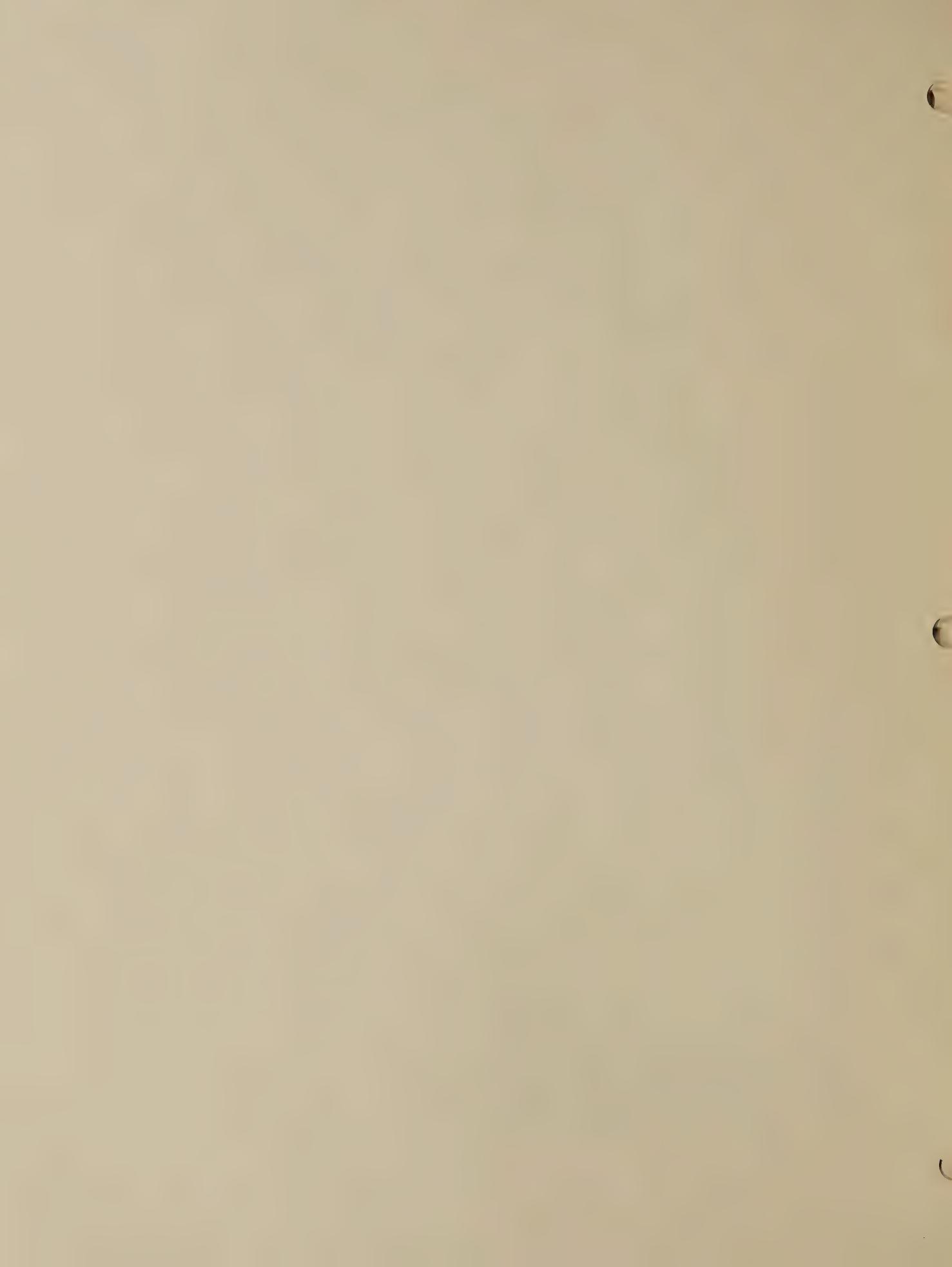
(

av - Conductors, bare, hard drawn copper

(These conductors shall be in accordance with ASTM Specifications B1-49 and B8-49, or latest revisions thereof.)

<u>Manufacturer</u>	<u>Sizes</u>
Anaconda	4/0 x 7, 2/0 x 7, 1/0 x 7, 4, 6
Kennecott	4/0 x 7, 2/0 x 7, 1/0 x 7, 1 x 3, 2 x 3, 4, 6
Phelps Dodge	4/0 x 7, 3/0 x 7, 2/0 x 7, 1/0 x 7, 2 x 3, 4, 6
Southwire	4/0 x 7, 1/0 x 7, 4, 6
General Cable	4/0 x 7, 2/0 x 7, 1/0 x 7, 2 x 3, 4, 6
Southern Elec.	4/0 x 7, 3/0 x 7, 2/0 x 7, 1/0 x 7, 1 x 3, 2 x 3, 4, 6

September 1951  
D av-2

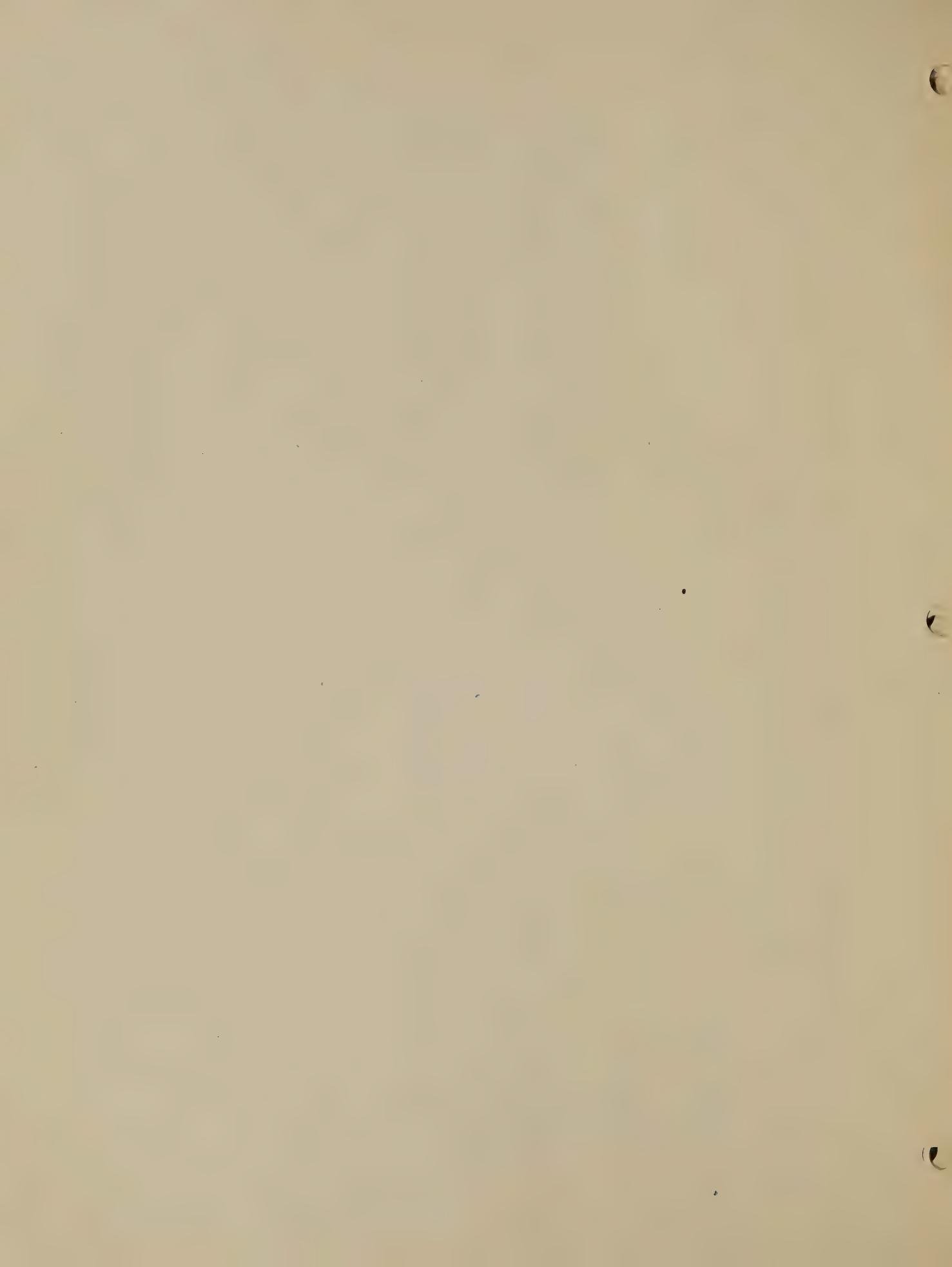


**av - Conductors, bare, aluminum, concentric-lay-stranded, steel-reinforced (ACSR)**

(These conductors shall be in accordance with ASTM Specification B232-48T, or latest revision thereof.)

<u>Manufacturer</u>	<u>Sizes</u>
ALCOA	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Anaconda	4 - 6/1, 4 - 7/1, 2 - 6/1, 1/0 - 6/1
Kaiser	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Southwire	4 - 6/1, 4 - 7/1, 2 - 6/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Midland	4 - 7/1, 2 - 6/1
Reynolds	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Southern Elec.	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1

September 1951  
D av-4



bh - Clevis, service, deadend, insulated

Manufacturer:                   Catalog Number:

Elec. Mfg. Co.                   600

Griffin

1310

Hubbard

1341

Joslyn

J0341

Kortick

K9100

Line Material

1757

Locke

0341

Mastergrip

901

Ohio Brass

36146

Oliver

4410

Porcelain Products

1442

Knox

1310

Seyler

0341

Thomas

13205

Util. Service

31136

September 1951  
D bh

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cg - Switches, pole-top, air-break, group-operated  
(Switches must conform with NEMA "Power Switching Equipment Standards")

<u>Manufacturer</u>	<u>Tilting Insulator Types</u>		<u>Rotating Insulator Type</u>
	<u>2-Insulator</u>	<u>2-Insulator</u>	
Schwager-Wood	RS2	RS3	TA-1 TA-2
Southern States	TR-6	TR-1	WAG
Westinghouse	RWR-2 RW-2	RWR-3	V

Note: Group operated switches in the 34.5, 46, and 69 kv ratings are to be furnished with interphase shafts suitable for seven-foot spacing between phases.

<u>Manufacturer</u>	<u>Type</u>
Matthews	GOARS

September 1951  
D cg-2

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cm = Insulator, spool

Type: Groove Diam.	Secondary 1-3/4"	Catalog Number: 3"	Service 1-3/8"
<u>Manufacturer:</u>			
Electrical Mfg. Co.	210	218	201 (dry)* 211 (wet)*
Hubbard	455	1716	1606 (dry)* 1706 (wet)*
Ill. Elec. Porc.	101	96	100DP (dry)* 100WP (wet)*
Jeffery-Dewitt Insulator Co.	2603	2595	2610 (wet)*
Joslyn		J0101	J100 (dry)* J150 (wet)*
Knox Porcelain		306	300D (dry)* 303W (wet)*
Kortick		K522	K5L4 (dry)* K5L3 (wet)*
Griffin		-	5207 (dry)*
Line Material		684	670 (dry)* 67L4 (wet)*
Locke		0716	0606 (dry)* 0608 (wet)*

\* "Wet" and "Dry" designations refer only to service spools.  
All secondary spools listed are wet process.

September 1951  
D cm<sup>-1</sup>



du - Extension Links  
(1-3/4" x 3/8", 20" between centers of holes)

<u>Manufacturer</u>	<u>Catalog Number</u>
Griffin	L-20
Hubbard	6768
Joslyn	J2528
Line Material	260070A1

September 1951  
D du

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gb - Meter Sockets

<u>Manufacturer</u>	<u>Type</u>	<u>Catalog Number</u>
Anchor		1000-V, 1001-V 2004
Duncan	C	109200, 109205, 109250, 109255
	D	108910, 108915
	HD	
General Electric	R-2	8907786G-1, 8907786G-3 8906905G-3
Murray		1650 265
Westinghouse	STU	1542851
	S	-
	S-5	-
	S-6	-
	STS	1538831
	STS-2	1538832
	STS-3	1538833
	STS-8	1538838
	STS-9	1538839

September 1951  
D gb

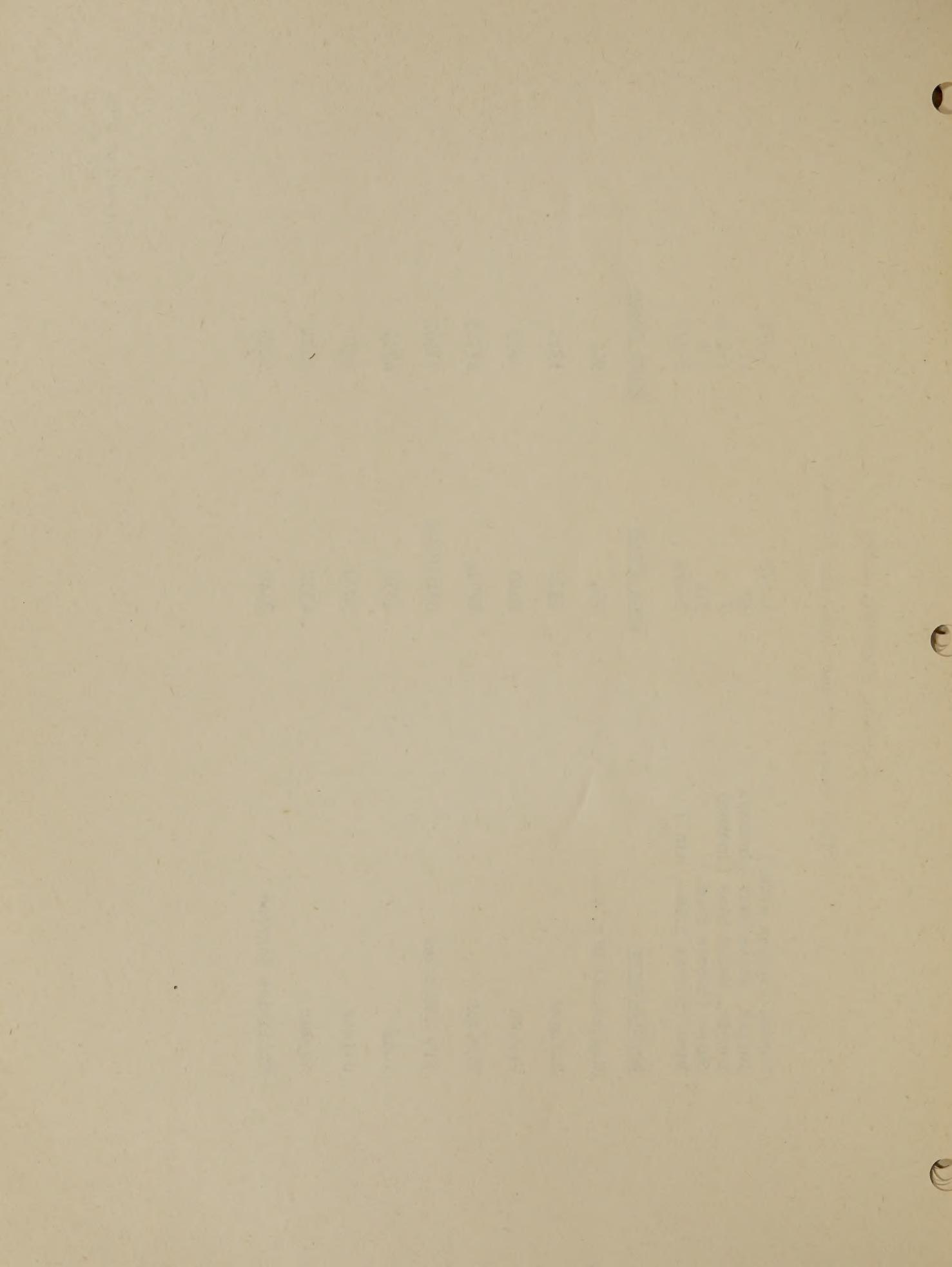


f - Pin, crossarm, steel

(With square washer, nut, and locknut)

<u>Manufacturer</u>	<u>Long Shank</u>	<u>Short Shank</u>
Electrical Mfg. Co.	954	960
Hubbard	5332	5331
Joslyn	J610	J633
Kortick	K7714	K7745
Line Material	B310010-4	31462
Locke	4332	4331
Oliver	3070	3470
Seyler	4332	4331
Utilities Service	3140	3145

September 1951  
T f



an - Transformers, Step-Down, Single-Phase, Substation

KVA Capacity	50	100	167	250	333	500	667	833	1000
Manufacturer									
General Electric KV Primary									
13.8, 13.2	X	-			X		-	-	-
22.9	X	X	-	-	X	-	-	-	-
34.4	-	X	-	X	X	X	-	-	-
43.8	-	X	-	X	X	X	-	-	-
67	-	-	-	-	-	-	-	-	-
Moloney KV Primary									
67	-	-	X	X	X	X	X	X	X
Westinghouse KV Primary									
13.8, 13.2									
22.9	-	-	-	X	X	X	-	X	-
34.4	-	X	X	X	X	X	-	X	-
43.8	X	X	-	X	X	X	-	X	-
67	-	X	-	-	-	X	-	-	-

"X" indicates an accepted size for secondary voltages of 7200/12470 volts Y and 7620/13200 volts Y.

"O" indicates an accepted size for secondary voltage of 14400/24900 volts Y.

September 1951  
Tan

